

What is claimed is:

- Sub*  
*g*
1. A color projection system comprising:
    - means for projecting optically received images;
    - means including a first LCD having a first plurality of monochrome pixels, for optically transmitting over a first optical path extending from said first LCD to said projecting means, monochrome images displayed on said first plurality of monochrome pixels of said first LCD;
    - means including a second LCD having a second plurality of pixels, for optically transmitting over a second optical path extending from said second LCD to said projecting means, monochrome images displayed on said second plurality of monochrome pixels of said second LCD;
    - means for interposing a first repetitive sequence of red, green and blue colored windows into said first optical path such that said optically transmitted monochrome images displayed on said first plurality of monochrome pixels of said first LCD are converted into corresponding color images to be received by said projecting means;
    - means for interposing a second repetitive sequence of red, green and blue windows, 180 degrees out of phase with said first repetitive sequence, into said second optical path such that said optically transmitted monochrome images displayed on said second plurality of monochrome pixels of said second LCD are converted into corresponding color images to be received by said projecting means; and
    - means responsive to an RGB signal, for activating selected ones of said first plurality of pixels of said first LCD corresponding to the color of

the window being interposed into said first optical path  
35 by said first repetitive sequence interposing means, and  
selected ones of said second plurality of pixels of said  
second LCD corresponding to the color of the window  
being interposed into said second optical path by said  
second repetitive sequence interposing means.

2. The color projection system as recited in  
claim 1, wherein said means for optically transmitting  
monochrome images displayed on said first plurality of  
monochrome pixels of said first LCD, and said means for  
5 optically transmitting monochrome images displayed on  
said second plurality of monochrome pixels of said  
second LCD include a lamp radiating light.

3. The color projection system as recited in  
claim 2, further comprising a polarizing prism  
positioned such that a portion of the light radiating  
from said lamp is passed to and reflected back from said  
5 first LCD, and another portion of the light radiating  
from said lamp is passed to and reflected back from said  
second LCD.

4. The color projection system as recited in  
claim 3, wherein the reflected back light from said  
first LCD follows said first optical path, and the  
reflected back light from said second LCD follows said  
5 second optical path.

5. The color projection system as recited in  
claim 1, further comprising means for aligning the  
optically transmitted monochrome images displayed on  
said first plurality of pixels of said first LCD and the  
optically transmitted monochrome images displayed on  
said second plurality of pixels of said second LCD.

6. The color projection system as recited in claim 5, wherein said aligning means includes an angled sheet of transparent material interposed into said first optical path.

5 7. The color projection system as recited in claim 1, wherein said means for interposing a first repetitive sequence of red, green and blue colored windows into said first optical path includes a first color wheel driven by a first motor at approximately 60 rotations per second.

5 8. The color projection system as recited in claim 1, wherein said means for interposing a second repetitive sequence of red, green and blue colored windows, 180 degrees out of phase with said first repetitive sequence, into said second optical path includes a second color wheel driven by a second motor at approximately 60 rotations per second.

Sub B3  
9. A method of projecting color images onto a display screen, comprising the step of synchronizing, in response to an RGB signal, the activation of selected monochrome pixels of first and second liquid crystal displays with the positions of red, green and blue windows of respectively corresponding first and second color wheels such that the red, green and blue windows of the first color wheel interposes a first optical path through which images on said first liquid crystal display are projected in such a manner as to form a sequence that is 180 degrees out of phase with a sequence formed by the red, green and blue windows of the second color wheel interposing a second optical path through which images on said second liquid crystal display are projected.

25

*Sub 93* 10. A method of projecting color images, comprising the steps of:

20 optically transmitting over a first optical path extending from a first LCD to a projecting means, monochrome images displayed on a first plurality of monochrome pixels of said first LCD;

25 interposing a first repetitive sequence of red, green and blue colored windows into said first optical path such that said optically transmitted monochrome images displayed on said first plurality of monochrome pixels of said first LCD are converted into corresponding color images to be received by said projecting means;

30 optically transmitting over a second optical path extending from a second LCD to said projecting means, monochrome images displayed on a second plurality of monochrome pixels of said second LCD;

35 interposing a second repetitive sequence of red, green and blue windows, 180 degrees out of phase with said first repetitive sequence, into said second optical path such that said optically transmitted monochrome images displayed on said second plurality of monochrome pixels of said second LCD are converted into  
40 corresponding color images to be received by said projecting means;

45 activating, in response to an RGB signal, selected ones of said first plurality of pixels of said first LCD corresponding to the color of the window being interposed into said first optical path at the time of such activating and selected ones of said second plurality of pixels of said second LCD corresponding to the color of the window being interposed into said second optical path at the time of such activating; and

50           projecting the optically received images  
transmitted over said first and second optical paths on  
to a display screen.

11. The method as recited in claim 10,  
further comprising the step of aligning with respect to  
each other, the optically received images transmitted  
over said first and second optical paths.

12. The method as recited in claim 11,  
wherein said optically aligning step comprises the steps  
of interposing a sheet of transparent material into said  
first optical path, and adjusting the angle of said  
5 sheet of transparent material with respect to said first  
optical path until the optically received images  
transmitted over said first and second optical paths are  
aligned with respect to each other.